

National 4 Homework 22

Questions 1, 3, 5 & 6 are Non Calculator

1. Calculate

a) $7 \cdot 29 + 2 \times 3.7$

b) $(1.2 + 3.8)^2 - 100$

c) $\frac{4}{9}$ of £3942

d) Increase 42m^2 by 20%

e) $4 + (-3) - (-17)$

f) $390 \div 500$

2. Aimee hopes to run a half marathon (13.1 miles) in 2 hours and 15 mins. Her running watch, at the end of the race, tells her her average speed was 5.8mph.

Will she be pleased with the time she has run?



3. a) Copy and Complete the table below for $y = 3x - 2$.

x	-2	0	2
y			

b) Draw the line $y = 3x - 2$ on a coordinate axis in your jotter.

4. Jan has 40 litres of petrol in the tank of her car. She travels 120 miles until the tank is empty. When full, the petrol tank in her car holds 75 litres. How far should she expect to drive on a full tank of petrol?



5. At 2pm at the Antarctic weather station the temperature is -17°C . By midnight the temperature is recorded as -36°C . By how many degrees has the temperature dropped?

6. Multiply out and simplify

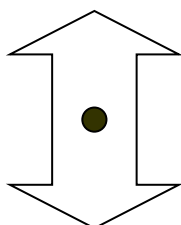
a) $6(2x - 3) + 10$

b) $4 + 5(3y + 5)$

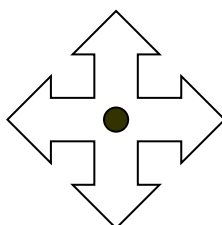
c) $3(3d - 2) + 5(8 - d)$

7. For each shape below, write down whether it has $\frac{1}{2}$ turn symmetry (order 2), $\frac{1}{4}$ turn symmetry (order 4) or neither

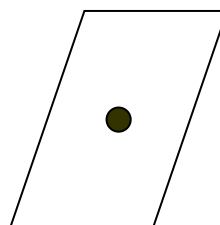
a)



b)



c)



d)

